NOTE: The document identifier and heading have been changed on this page to reflect that this is a performance specification. There are no other changes to this document. The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

INCH-POUND

MIL-PRF-27/2F
23 July 1990
SUPERSEDING
MIL-T-27/2E
28 November 1989

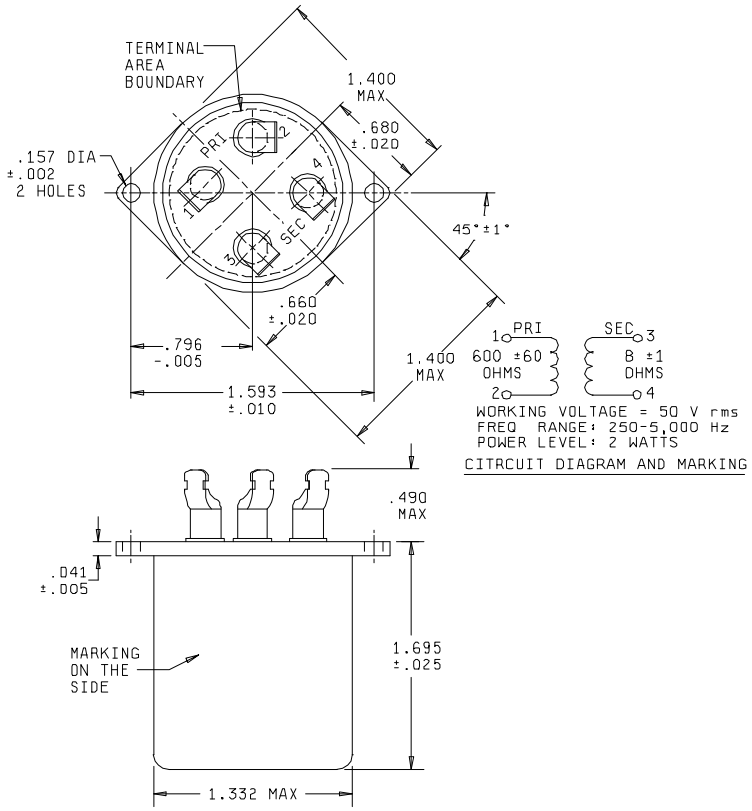
PERFORMANCE SPECIFICATION SHEET

TRANSFORMERS, AUDIO FREQUENCY, TF4R21YY AND TF4S21YY

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-T-27.

Part number M27/1-01 is inactive for new design after 4 April 1985. For new design use M27/2-02.



Inches	mm
.002	0.05
.005	0.13
.010	0.25
.020	0.51
.025	0.64
.041	1.04
.157	3.99
.490	12.45
.680	17.27
.796	20.22
1.200	30.48
1.332	33.83
1.400	35.56
1.593	40.46
1.695	43.05

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for general information only.

FIGURE 1. Dimensions and configurations.

(F) denotes changes

REQUIREMENTS: (When numbers in parentheses, i.e., (1-2) are used, they indicate the winding and the extreme terminals of the winding.)

Electrical rating:

Primary power level: 2 W at 1 kHz.

Working voltage (peak): 50 volts.

Design, configuration, and physical dimensions: See figure 1.

Material: Metal encased, steel.

Weight: 4 ounces, maximum.

Duty cycle: Continuous.

Terminal: Solder lug, number 18 AWG, stand-off type.

Temperature range: See table I.

Terminal strength: Method 211 of MIL-STD-202, test condition A, 5 pounds.

Dielectric withstanding voltage: Method 301 of MIL-STD-202; test voltage, 500 V rms.

Electrical characteristics:

Harmonic distortion: Not more than 1 percent at 2 W ±1 dB at 1 kHz.

Primary impedance: 600 ±60 ohms (1-2).

Secondary load impedance: 8 ±1 ohms (3-4).

Ⓔ DC resistance (DCR):

Primary DCR: 25 ohms ±25 percent.

Secondary DCR: 0.48 ohm ±25 percent.

Frequency response:

Range: 250 Hz to 5,000 Hz at rated power, flat within ±2 dB; reference frequency 1 kHz; test voltage 34.6 V rms (1-2).

Insertion loss: 0.5 dB maximum, with 2 W input at 1 kHz.

Polarity: Additive, with terminals 2 and 3 connected.

Temperature rise: See table I.

Vibration, high frequency: Method 204, test condition B.

Shock (specified pulse): Method 213, test condition H.

Part number: M27/2- (dash number from table I).

TABLE I. Temperature characteristics.

Dash number	Temperature range	Maximum operating temperature with rated power at 300 Hz		Type designation
		Temperature rise	Ambient temperature	
-01	-55°C to +105°C	40°C maximum	65°C	TF4R21YY
-02	-55°C to +130°C	40°C maximum	90°C	TF4S21YY

CONCLUDING MATERIAL

Custodians:
Army - ER
Navy - EC
Air Force - 85

Review activities:
Army - AR
Navy - OS, SH
Air Force - 11, 17, 99
DLA - ES

User activities:
Army - ME
Navy - AS, MC
Air Force - 19

Preparing activity:
Army - ER

Agent:
DLA - ES

(Project 5950-0755-2)